IN THE SPECIFICATION:

Please replace starting paragraph 4, at page 9, through paragraph 1, at page 12, as follows:

A second embodiment of the optical signal quality monitoring apparatus in accordance with the present invention and exemplified in FIG. 3 includes the PD ~~120~~210, the CDR unit ~~140~~220, and a monitoring unit 240 that features the inverting amplifier ~~164~~242, the adder ~~166~~244, the band pass filter ~~167~~ 246 and the radio-frequency power detector ~~168~~248. The second embodiment of FIG. 3 is different from the first embodiment of FIG. 2 in that it employs only one PD ~~120~~210. Therefore, as compared with the first embodiment of FIG. 2, the second embodiment of FIG. 3 can implement the optical signal quality monitoring apparatus more economically by reducing the number of PDs.

FIG. 4a shows, with respect to the FIG. 2 or 3, a waveform of a signal from the inverting amplifier 164 or 242 and a data signal b from the CDR unit 140 or 220. FIG. 4c shows a waveform of a signal c from the adder 166 or 244.

As seen from FIG. 4a, the output optical signal from the inverting amplifier 164 or 242 has a waveform with a large degree of variation due to deterioration in the input optical signal resulting from noise or distortion. The recovered data signal from the CDR unit 140 or 220 has a waveform with no significant variation as shown in FIG. 4b even when the input optical signal is deteriorated due to noise or distortion. The result of these two signals added by the adder 166 or 244 has a power level proportioned to the amount of noise or distortion contained in the input optical signal.

FIG. 5 depicts an example of a third embodiment of the optical signal quality monitoring apparatus in accordance with the present invention which differs from the first embodiment in that it is implemented with two band pass filters 364, 365. The optical signal quality monitoring apparatus comprises the optical coupler ~~100~~300, the PD ~~120~~320, the CDR unit ~~140~~ 340 and a monitoring unit 360. The monitoring unit 360 includes the PD ~~162~~362, the inverting amplifier ~~164~~363, band pass filters 364, 365, the adder ~~166~~367, and the radio-frequency power detector ~~168~~369.

FIG. 6 illustrates an exemplary fourth embodiment of the optical signal quality monitoring apparatus in accordance with the present invention that differs from the second embodiment in that it is implemented with two band pass filters 443, 445. The optical signal quality monitoring apparatus comprises the PD ~~120~~410, the CDR unit ~~120~~ 420 and a monitoring unit 440. The monitoring unit 440 includes the inverting amplifier ~~164~~442, band pass filters 443, 445, the adder ~~166~~ 447 and a radio-frequency power detector ~~168~~449. The fourth embodiment is also similar to the third embodiment, but differs in that it employs only one PD 410. Therefore, as compared with the third embodiment of FIG. 5, the fourth embodiment of FIG. 6 can implement the optical signal quality monitoring apparatus more economically by reducing the number of PDs.

FIG. 7a shows a waveform of a signal a from the band pass filter 364 or 443, FIG. 7b shows a waveform of a signal b from the band pass filter 365 or 445, and FIG. 7c shows a waveform of a signal c from the adder ~~166~~367 or 447. As seen from FIG. 7a, the output optical signal, inverted/amplified by the inverting amplifier ~~164~~ 363 or 442 and then band pass filtered by the band pass filter 364 or 443, has a waveform with a large degree of

variation due to deterioration in the input optical signal resulting from noise or distortion. The data signal, recovered by the CDR unit ~~140~~ 340 or 420 and then band pass filtered by the band pass filter 365 or 445, has a waveform with no significant variation as shown in FIG. 7b even when the input optical signal is deteriorated due to noise or distortion. The result of these two signals added by the adder 367 or 447 has a power level proportioned to the amount of noise or distortion contained in the input optical signal.